Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the above-identified application

Listing of Claims:

1 (Currently Amended).   A method of facilitating failover of a stateful protocol connection from a proxy element to a standby proxy, the method comprising:

receiving, at the proxy element, data sent by a first external entity in accordance with a first stateful protocol connection;

withholding acknowledgment of receipt of the data at the proxy element until a predefined operation involving the data has been performed;

transferring state information relating to the first stateful protocol connection from the proxy element to a standby proxy; and

sending, from the proxy element, the acknowledgment of receipt to the first external entity subsequent to performance of the predefined operation involving the data.

2 (Original).   The method of claim 1 wherein the predefined operation comprises committing the data to an application executing upon the proxy element and receiving a send acknowledgment command from the application.

3 (Original).   The method of claim 1 wherein the predefined operation comprises:

sending, from the proxy element, the data to a second external entity; and

receiving, at the proxy element, a second acknowledgment that the data has been received at the second external entity.

4 (Original). The method of claim 3 wherein the sending of the data to the second external entity is performed in accordance with a second stateful protocol connection, the method further including transferring state information relating to the second stateful protocol connection to the standby proxy.

5 (Original). The method of claim 1 further including failing over the first stateful protocol connection to the standby proxy.

6 (Original). The method of claim 4 further including failing over the second stateful protocol connection to the standby proxy.

7 (Original). The method of claim 1 further including:

transmitting, from the first external entity, the data to the proxy element and retaining a copy of the data; and

deleting the copy of the data upon receipt at the first external entity of the acknowledgment.

8 (Original). The method of claim 1 wherein the transferring of the state information is performed in accordance with an additional stateful protocol connection.

9 (Original). The method of claim 5 further including beginning servicing, at the standby proxy, the first stateful protocol connection from a last successful point of synchronization between the proxy element and the standby proxy.

10 (Original). The method of claim 1 further including detecting, at the standby proxy, failure of the first stateful protocol connection and initiating failover of the first stateful protocol connection from the proxy element to the standby proxy.

11 (Currently Amended).   A method of facilitating failover of a stateful protocol connection, the method comprising:

receiving, at a primary system, data sent by a first external entity in accordance with the stateful protocol connection;

withholding acknowledgment of receipt of the data until a predefined operation involving the data has been performed;

transferring state information relating to the stateful protocol connection to a standby system; and

sending, from the primary system, the acknowledgment of receipt to the first external entity subsequent to performance of the predefined operation involving the data.

12 (Original). The method of claim 11 wherein the predefined operation comprises committing the data to an application and receiving a send acknowledgment command from the application.

13 (Original). The method of claim 11 wherein the predefined operation comprises:
sending the data to a host entity; and
receiving confirmation that the data has been received at the host entity.

14 (Original). The method of claim 11 further including failing over the stateful protocol connection to the standby system.

15 (Original). The method of cl aim 11 wherein the transferring of the state information is performed in accordance with an additional stateful protocol connection.

16 (Currently Amended).   The method of claim 14 further including beginning servicing, at the standby system, the stateful protocol connection from a last successful point of synchronization between the proxy element and the standby systemproxy.

17 (Currently Amended) . The method of claim 11 further including detecting, at the standby system, failure of the ~~first~~ stateful protocol connection and initiating failover of the stateful protocol connection to the standby system.

18 (Currently Amended). A stateful protocol processing apparatus comprising:

a proxy element having a first protocol core and a second protocol core, the first protocol core supporting a first stateful protocol connection over which data is received from a first external entity wherein the proxy element is configured to withhold acknowledgment of receipt of the data until a predefined operation involving the data has been performed and to send the acknowledgment to the first external entity subsequent to performance of the predefined operation; and

a standby element to which state information relating to the first stateful protocol connection is transferred from the proxy element.

19 (Original). The apparatus of claim 18 wherein the predefined operation comprises committing the data to an application executing upon the proxy element and receiving a send acknowledgment command from the application, wherein the proxy element is further configured to send the acknowledgment of receipt to the first external entity subsequent to performance of the predefined operation.

20 (Original). The apparatus of claim 18 wherein the second protocol core is configured to support a second stateful protocol connection to a second external entity over which is transmitted the data and wherein the predefined operation comprises receiving, at the proxy element, a second acknowledgment that the data has been received at the second external entity.

21 (Currently Amended). The apparatus of claim 18 further including a switch disposed to failover the first stateful protocol connection from the proxy element to the standby element~~proxy~~.

22 (Currently Amended).   The apparatus of claim 21 further including a failure detection unit configured to detect failure of the first stateful protocol connection and to command the switch to initiate said failover, the standby elementproxy beginning servicing of the first stateful protocol connection from a last successful point of synchronization between the proxy element and the standby elementproxy.

23 (New).   The apparatus of claim 18 wherein the standby element includes memory in which is stored the state information relating to the first stateful protocol connection.

24 (New).   A method of facilitating failover of a stateful protocol connection, the method comprising:

receiving data sent by a first external entity in accordance with the stateful protocol connection;

transferring state information relating to the stateful protocol connection to a standby system;

withholding acknowledgment of receipt of the data until a predefined operation involving the data has been performed, the predefined operation including storing the state information in memory within the standby system, and

sending the acknowledgment of receipt to the first external entity subsequent to performance of the predefined operation involving the data.

25 (New).   The method of claim 24 wherein the predefined operation further comprises committing the data to an application and receiving a send acknowledgment command from the application.

26 (New). The method of claim 24 wherein the predefined operation further comprises:

sending the data to a host entity; and

receiving confirmation that the data has been received at the host entity.